

Application No.: 10/811,423
Response dated: April 25, 2008
Reply to Office Action dated: December 20, 2007

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (withdrawn) A method for culturing human embryonic stem cells comprising culturing the stem cells in a nutrient medium in which the stem cells will remain undifferentiated and in an atmosphere having no more than about 5% oxygen.
2. (withdrawn) The method of claim 1 wherein the medium further comprises an antioxidant in the nutrient medium.
3. (withdrawn) An improvement in methods for cloning cultures of human embryonic stem cells, the improvement comprising culturing the human embryonic stem cells prior to cloning in a nutrient medium and in an atmosphere having no more than about 5% oxygen.
4. (withdrawn) The improvement of claim 3 further comprising adding an antioxidant to the nutrient medium in which the stem cells are cultured.
5. (withdrawn) A method for culturing human embryonic stem cells comprising culturing the stem cells in a nutrient medium in which the stem cells can remain undifferentiated and in an atmosphere having no more than about 5% oxygen.
6. (withdrawn) An improvement in a medium for the cultivation of human embryonic stem cells, the improvement comprising that the medium is adjusted to have an osmolarity in excess of 330 mOsMol.
7. (withdrawn) The improvement as claimed in claim 6 wherein the osmolarity of the medium is about 350 mOsMol.

8. (Previously presented) A stem cell culture comprising a culture plate; a nutrient medium in the culture plate, said medium having an osmolarity in excess of 330 mOsMol; and undifferentiated human embryonic stem cells, wherein the cells are cultured in the medium, wherein the osmolarity in the medium is optimized to support undifferentiated growth of the cells.

9. (original) A stem cell culture as claimed in claim 8 wherein the osmolarity is about 350 mOsMol.

10. (withdrawn) A method for culturing human embryonic stem cells comprising culturing the stem cells in a nutrient medium in which the stem cells will remain undifferentiated, the medium having an osmolarity in excess of 330 mOsMol.

11. (withdrawn) A method as claimed in claim 10 wherein the medium has an osmolarity of about 350mOsMol.

12. (previously presented) The culture of Claim 8 wherein the cells remain undifferentiated.

13. (previously presented) A stem cell culture comprising a culture plate; a nutrient medium in the culture plate, said medium having an osmolarity in the range of 330 mOsMol to about 350 mOsMol, wherein the quality index of the medium (MQI) is optimal when osmolarity is in excess of 330 mOsMol; and undifferentiated human stem cells defined by expression of Oct4 marker in the medium, wherein the osmolarity in the medium is optimized to support undifferentiated growth of the cells.

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14. (previously presented) A stem cell culture as claimed in claim 13 wherein the osmolarity is about 350 mOsMol.